FIG. 1A

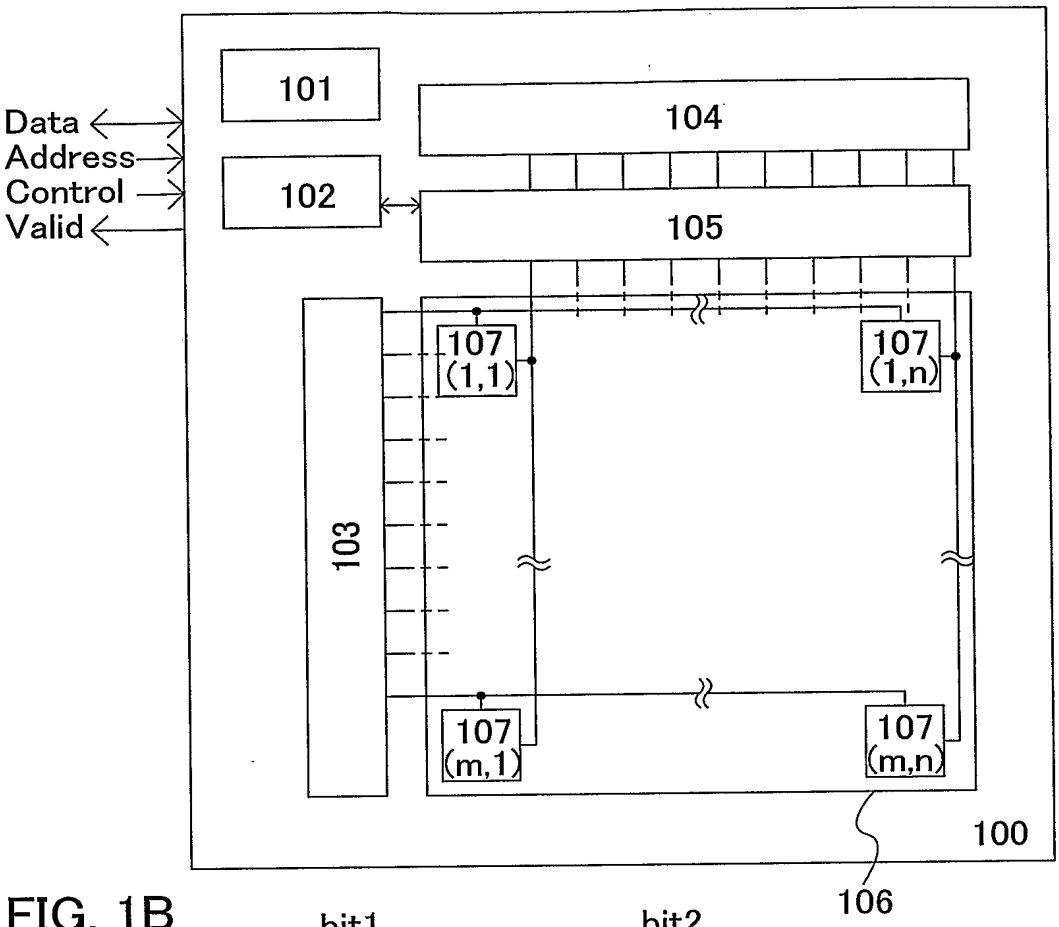

Data
Address
Control
Valid
101
102
104
105
103
107 (1,1)
107 (1,n)
107 (m,1)
107 (m,n)
100
106

FIG. 1B

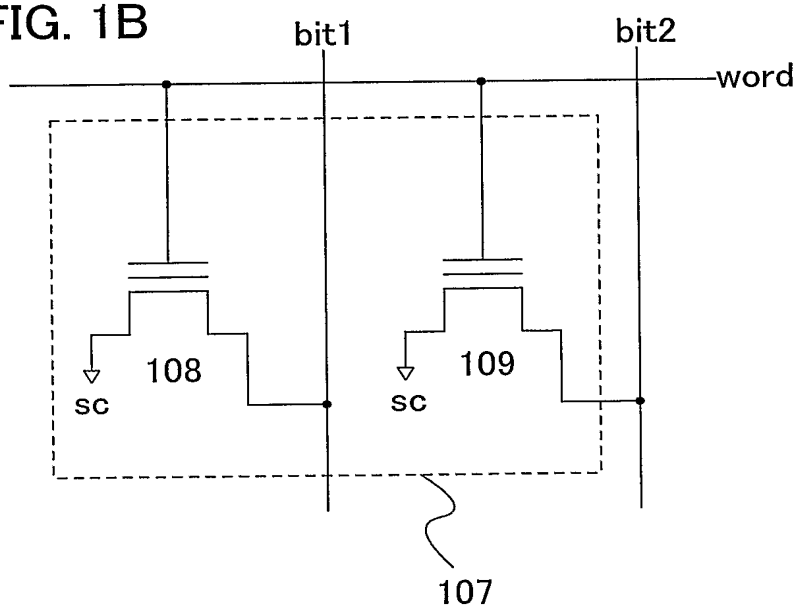

bit1
bit2
word
108
109
sc
sc
107

FIG. 2A

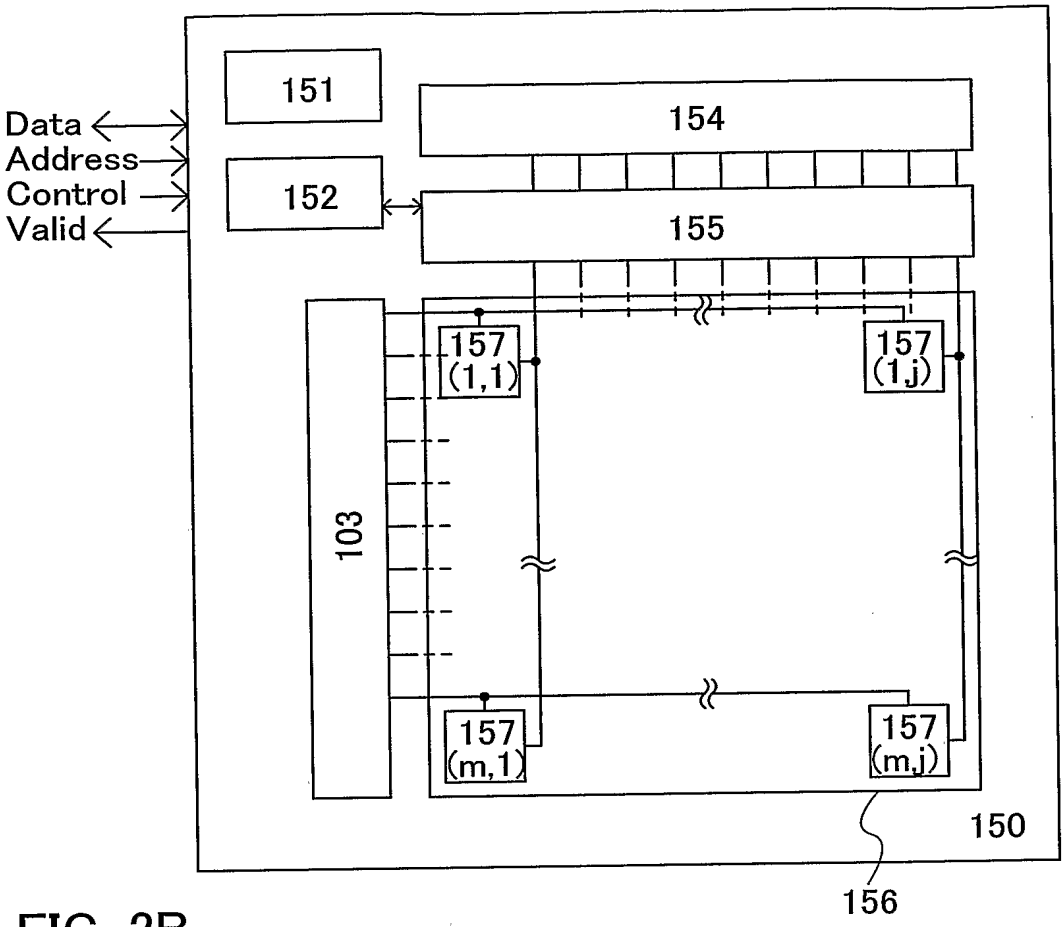

Data
Address
Control
Valid
151
152
154
155
157 (1,1)
157 (1,j)
157 (m,1)
157 (m,j)
103
150
156

FIG. 2B

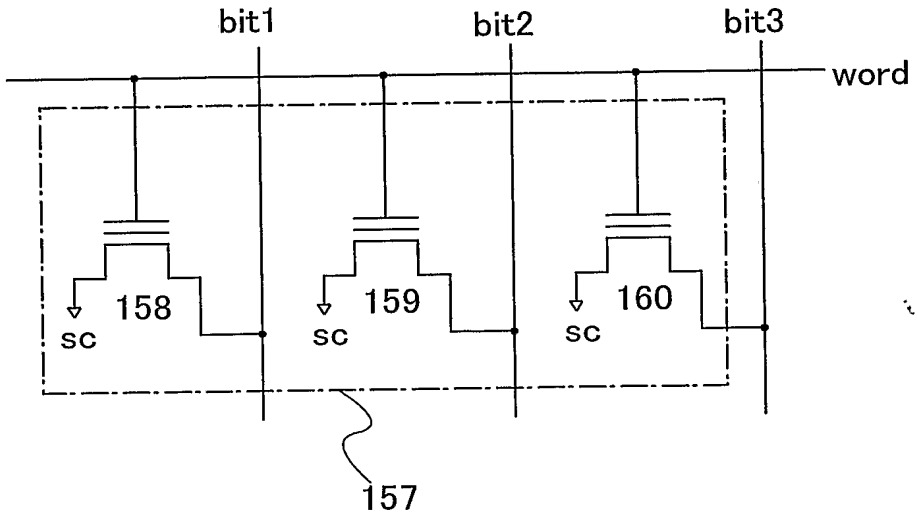

bit1
bit2
bit3
word
158
159
160
sc
sc
sc
157

FIG. 3

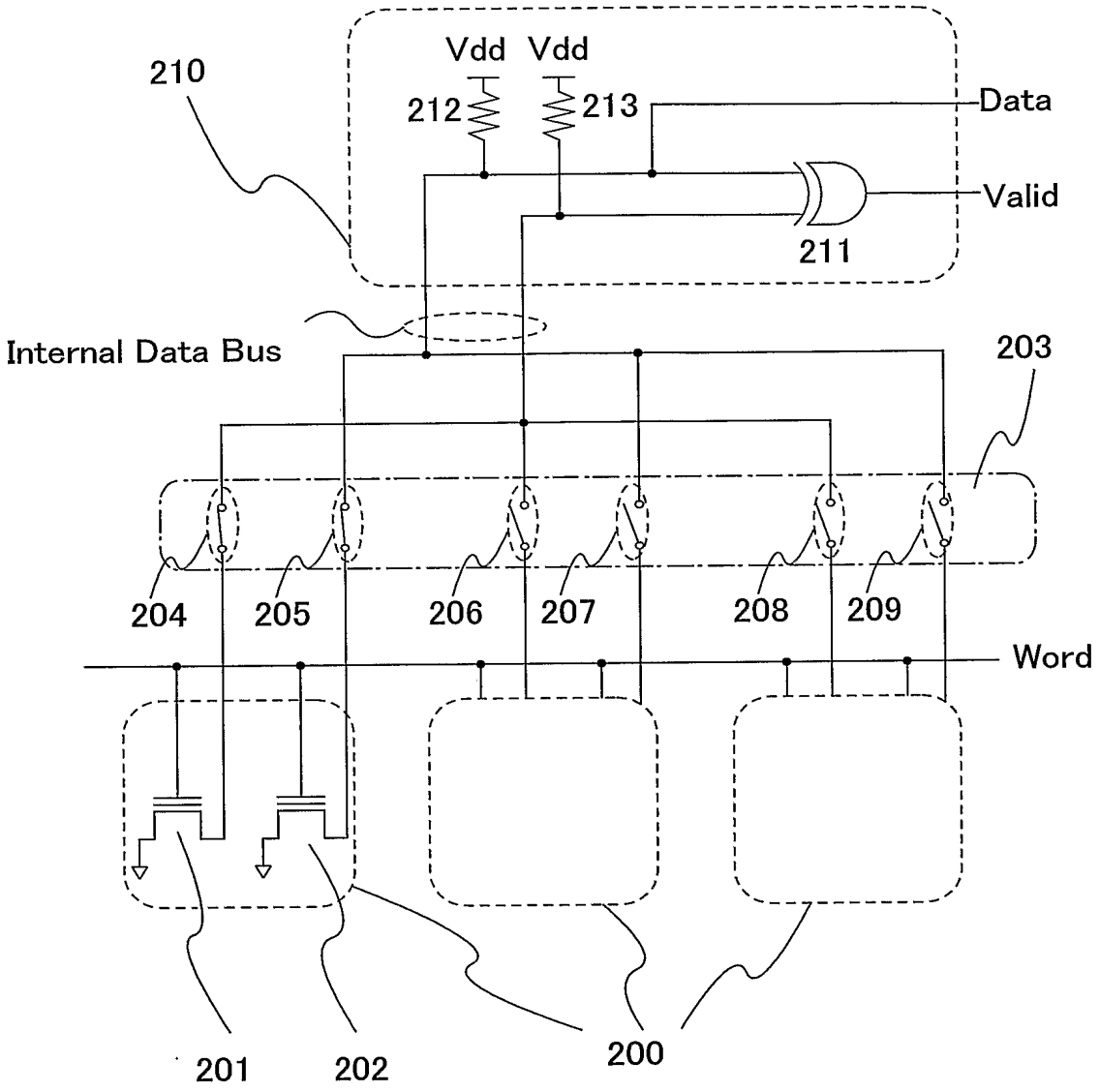

210
Vdd
Vdd
212
213
Data
Valid
211
Internal Data Bus
203
204
205
206
207
208
209
Word
201
202
200

FIG. 4

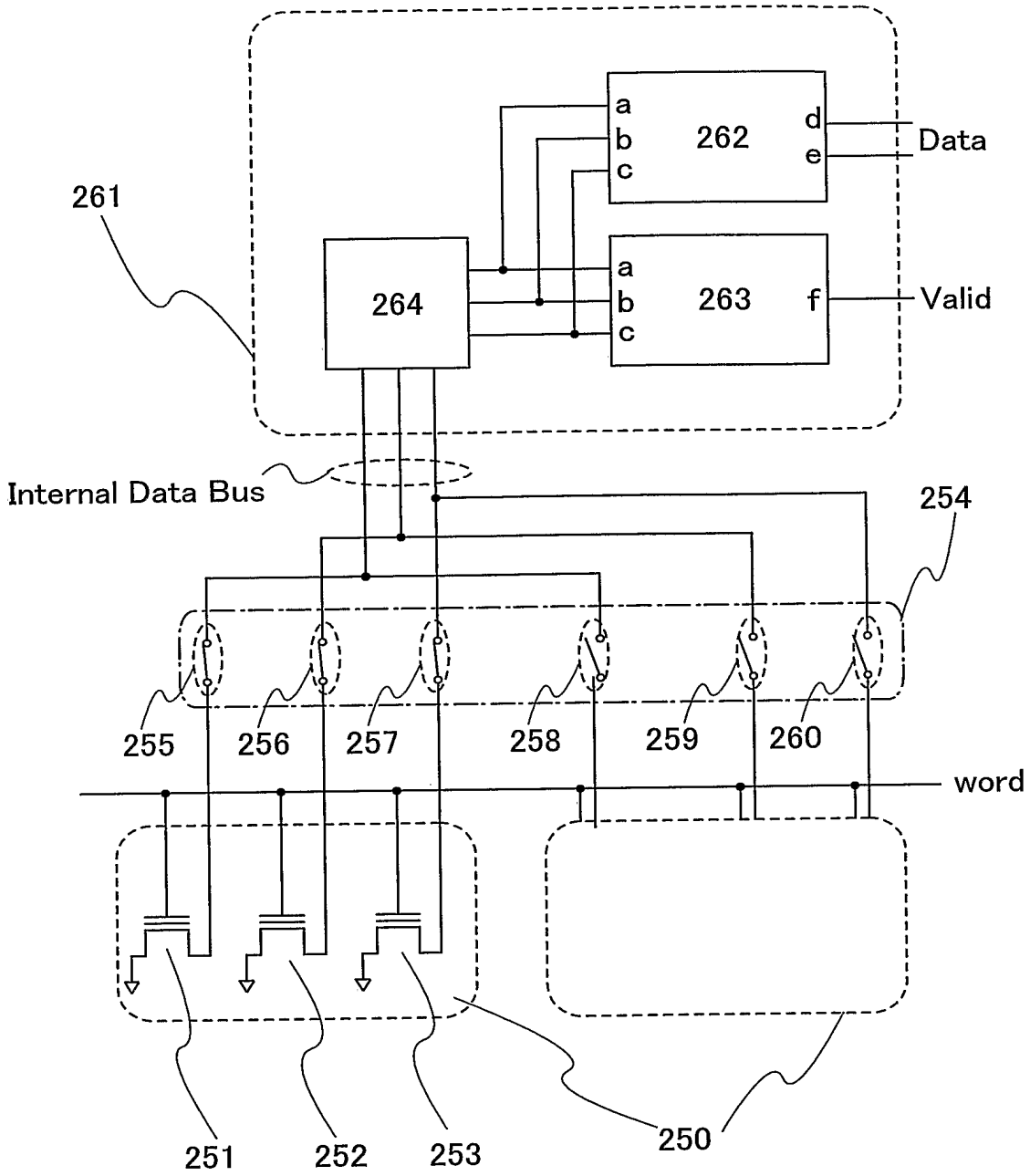

261
a
b
c
262
d
e
Data
264
a
b
c
263
f
Valid
Internal Data Bus
254
255
256
257
258
259
260
word
251
252
253
250

FIG. 5

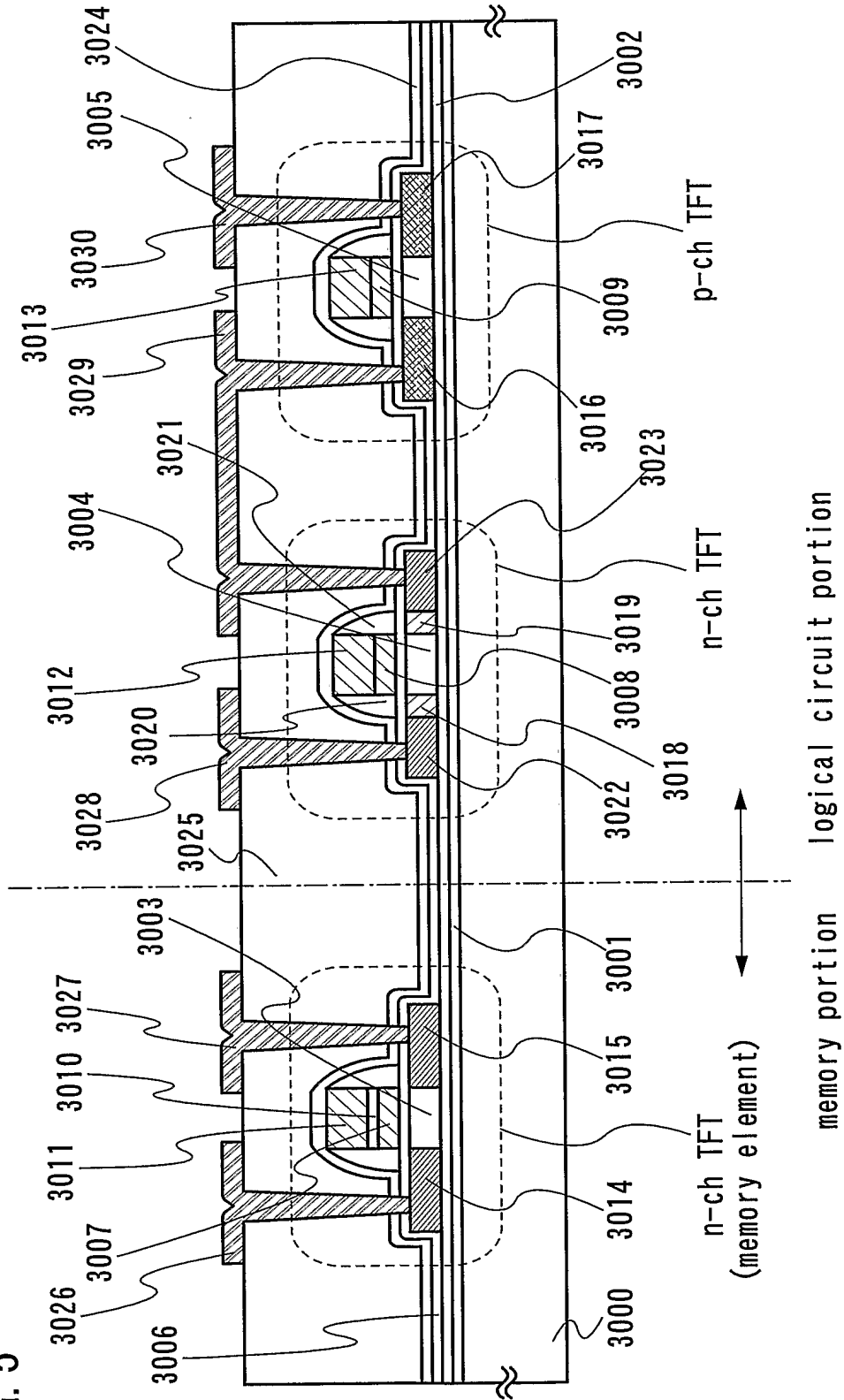

3024
3005
3030
3013
3029
3021
3004
3012
3020
3028
3025
3003
3027
3010
3011
3007
3026
3006
3002
3017
3009
3016
3023
3019
3008
3018
3022
3001
3015
3014
3000
p-ch TFT
n-ch TFT
n-ch TFT
(memory element)
memory portion
logical circuit portion

FIG. 6

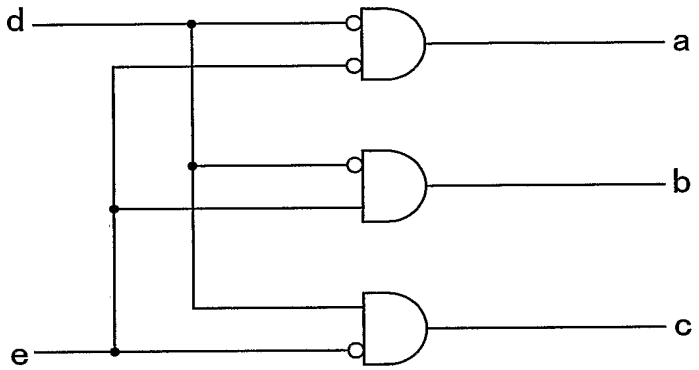


FIG. 7

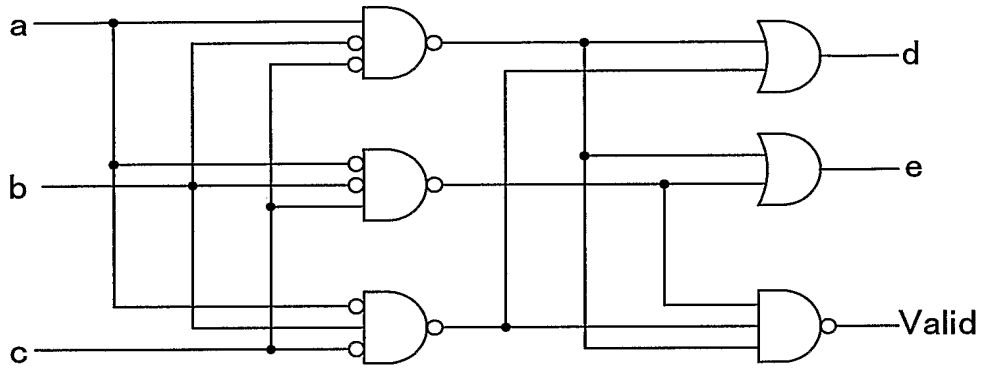


FIG. 8

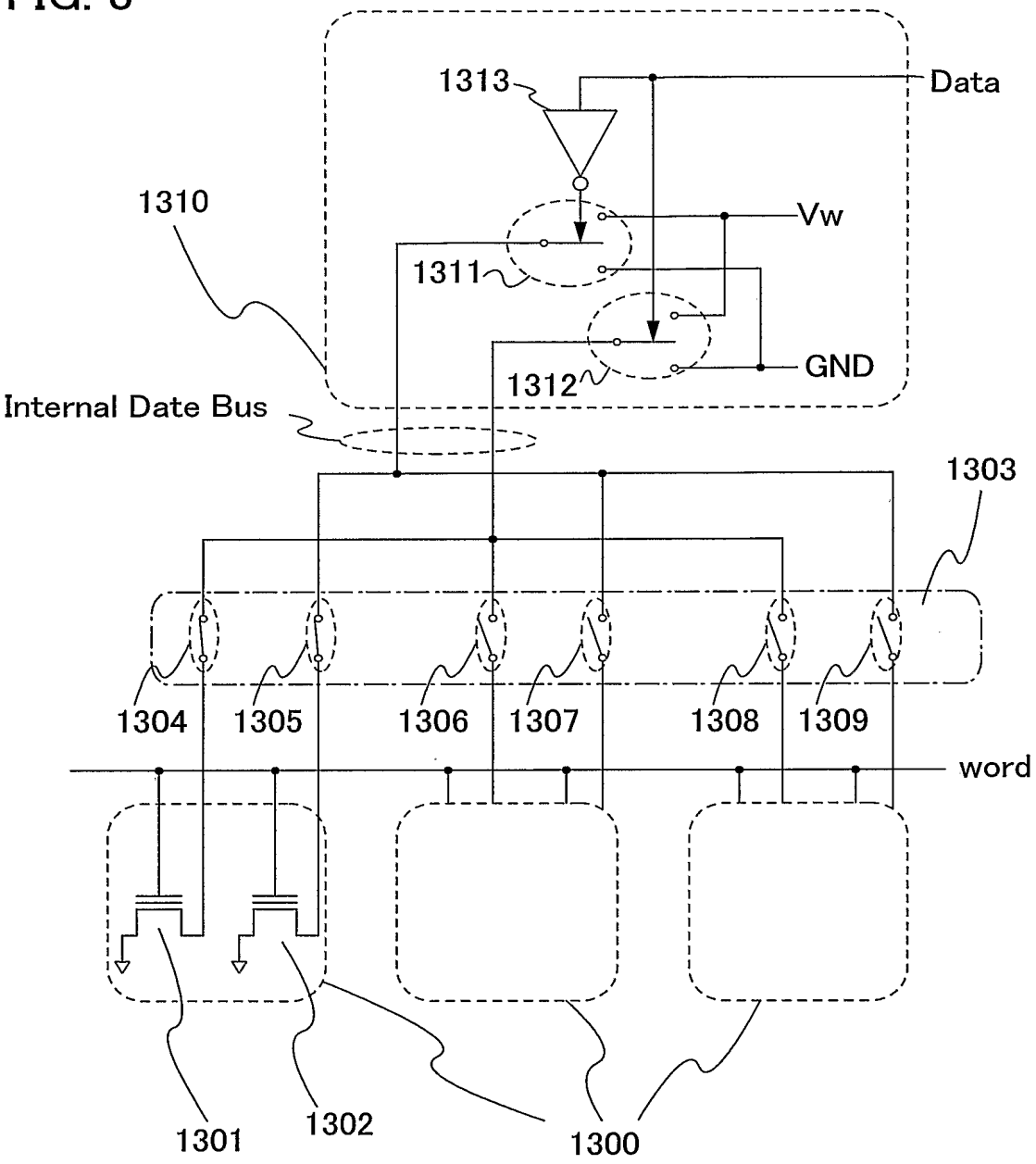
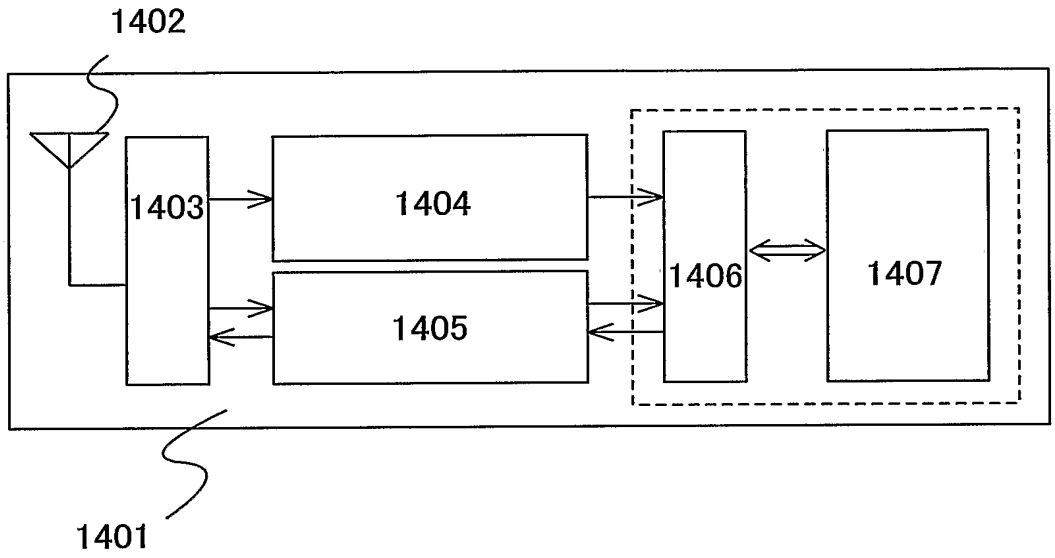

1313
Data
1310
Vw
1311
GND
1312
Internal Date Bus
1303
1304
1305
1306
1307
1308
1309
word
1301
1302
1300

FIG. 9



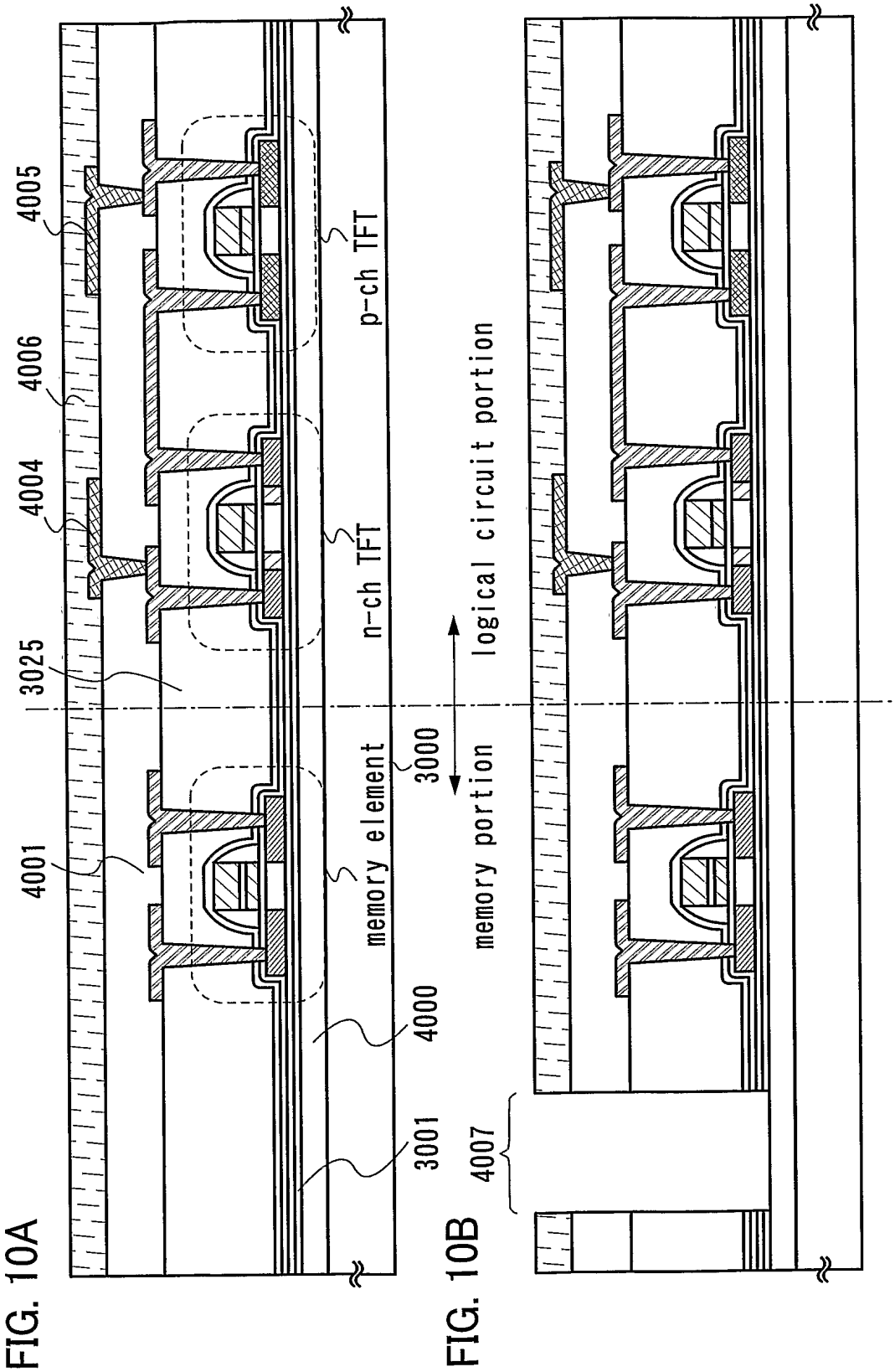


FIG. 10A

FIG. 10B

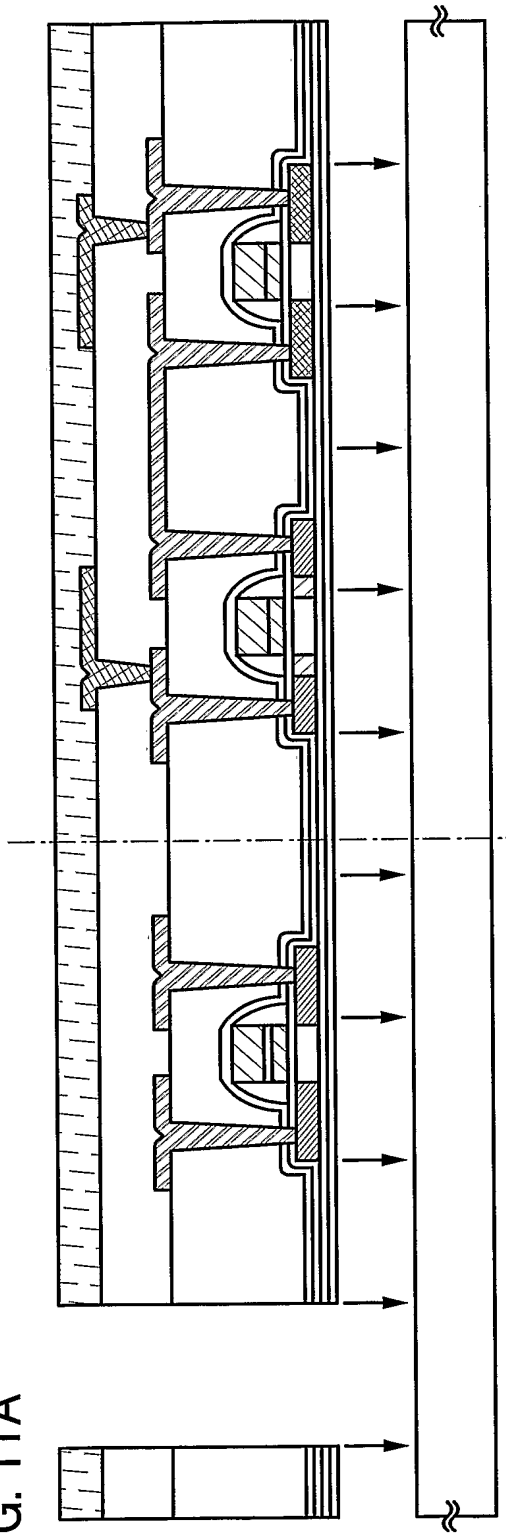


FIG. 11A

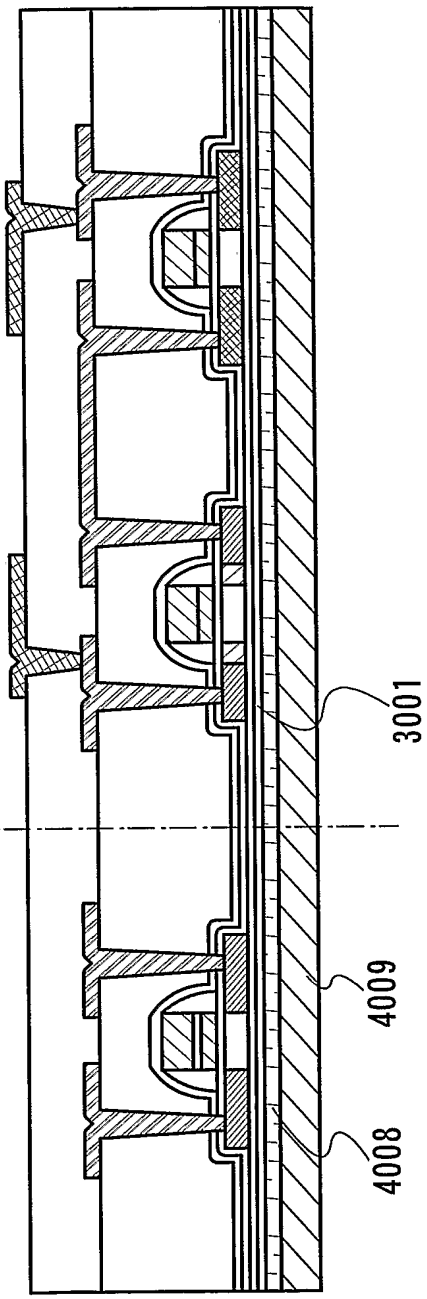


FIG. 11B

FIG. 12A

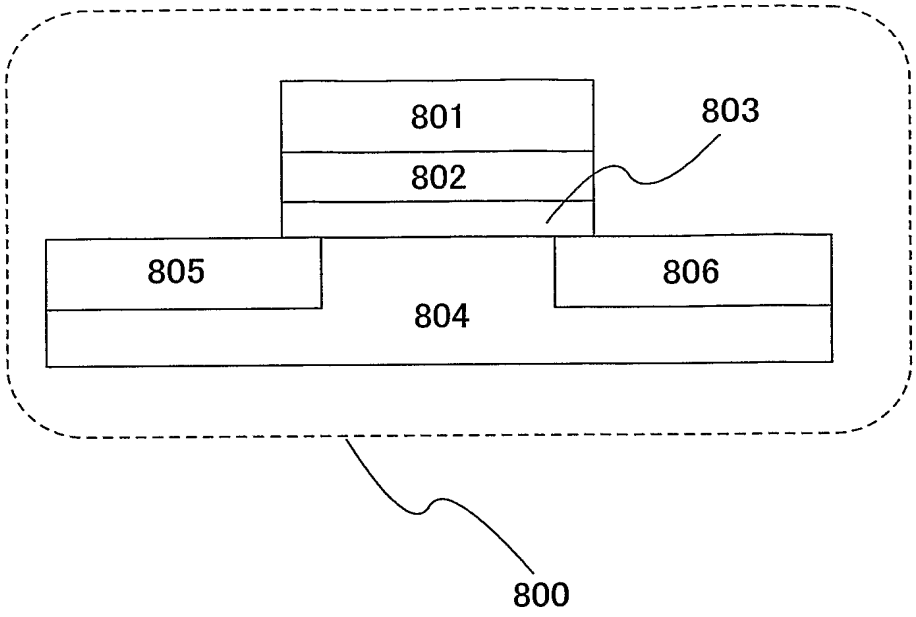


FIG. 12B

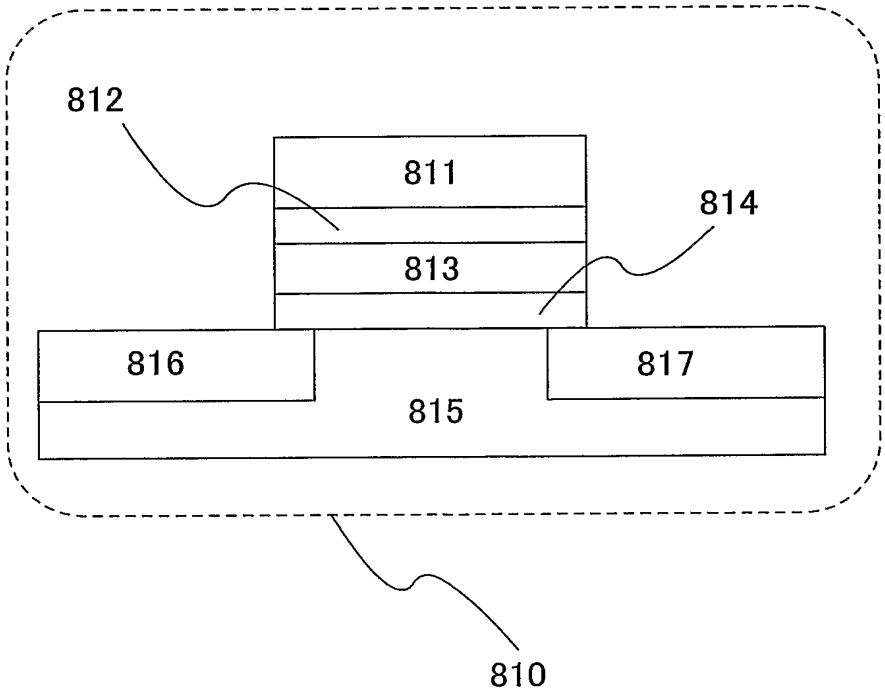


FIG. 13

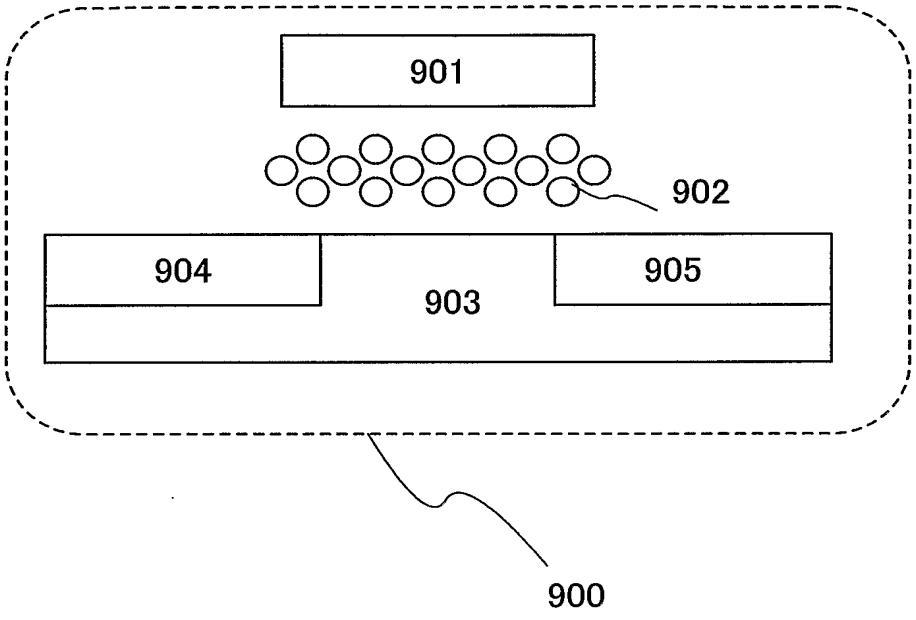


FIG. 14A

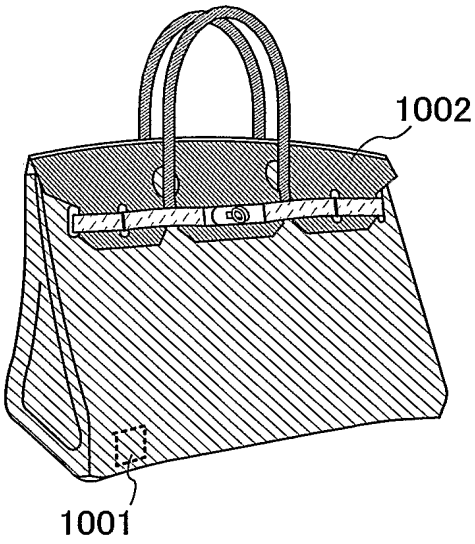


FIG. 14B

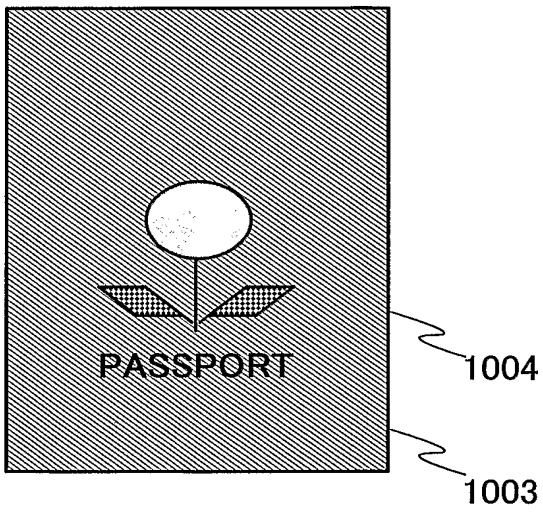


FIG. 14C

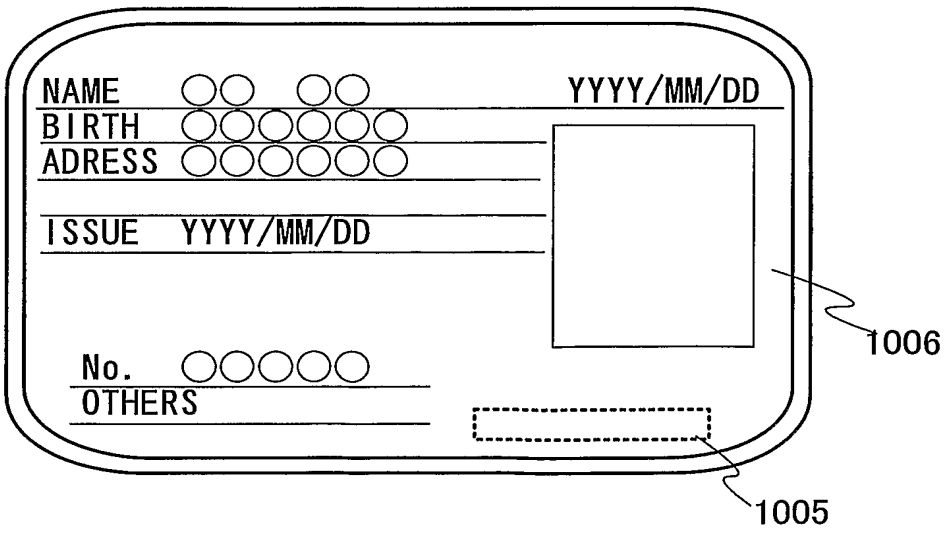


FIG. 15A

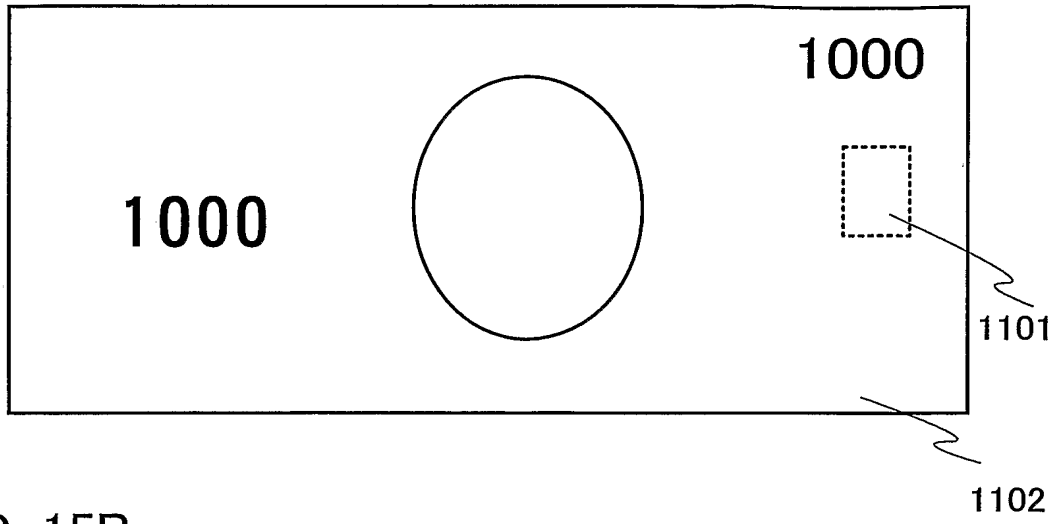


FIG. 15B

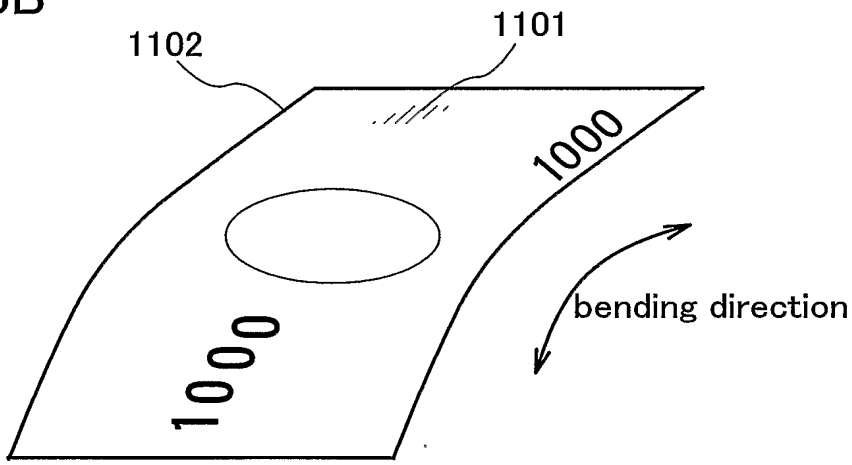


FIG. 15C

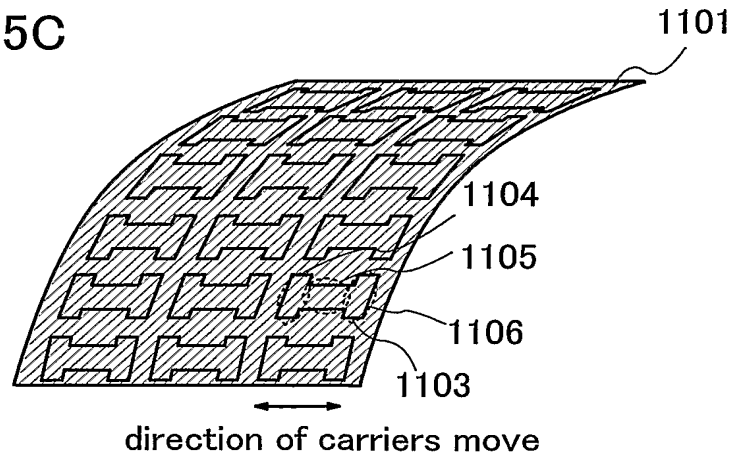


FIG. 16A

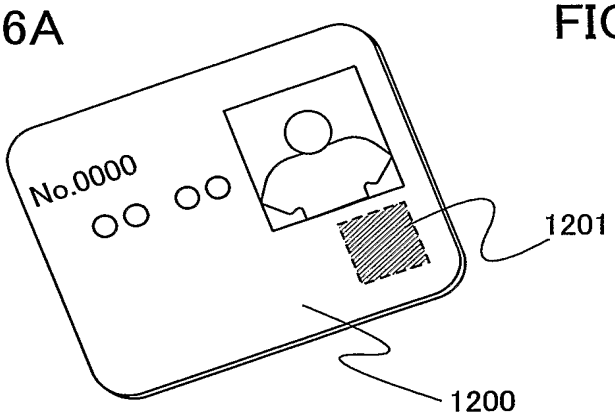


FIG. 1B

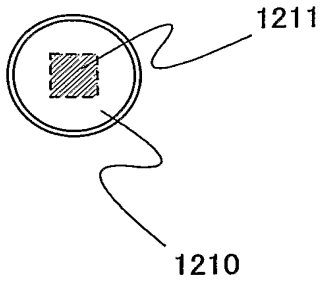


FIG. 16C

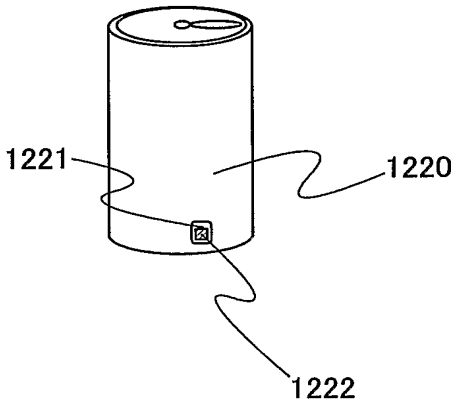


FIG. 16D

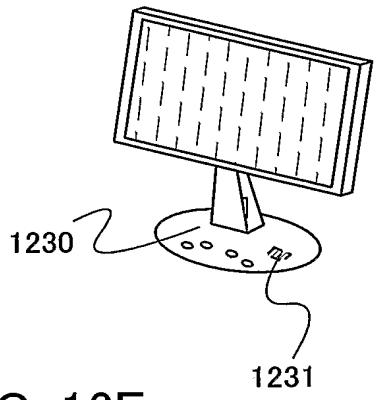


FIG. 16E

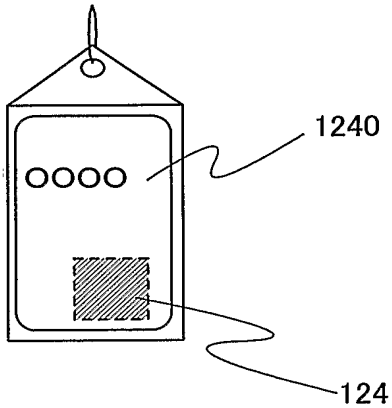


FIG. 16F

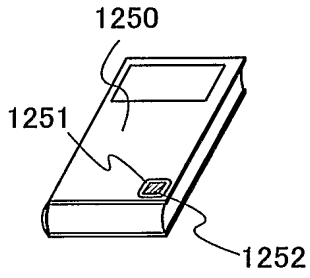


FIG. 16G

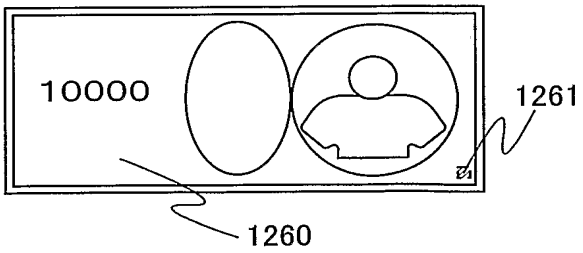


FIG. 16H

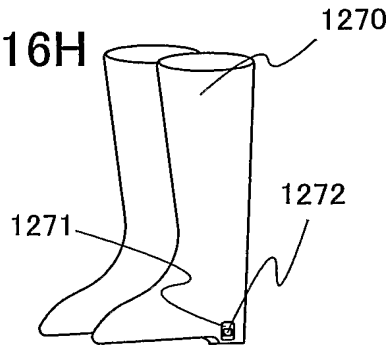


FIG. 17A

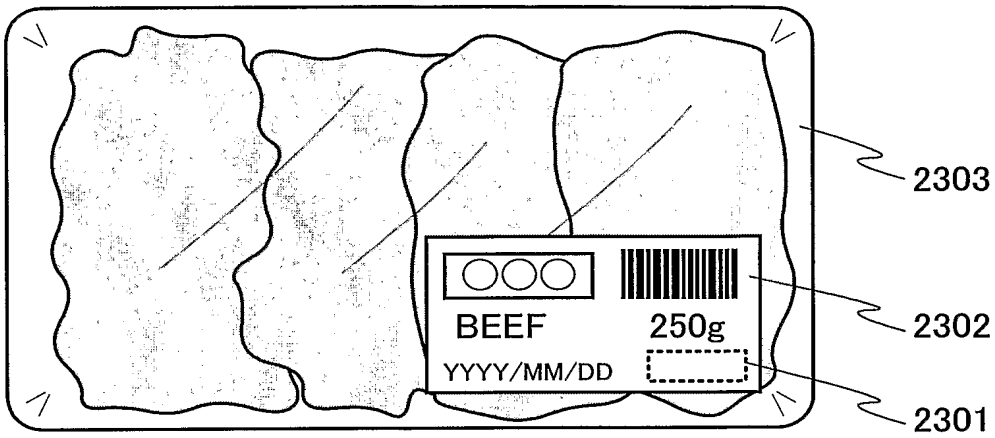


FIG. 17B

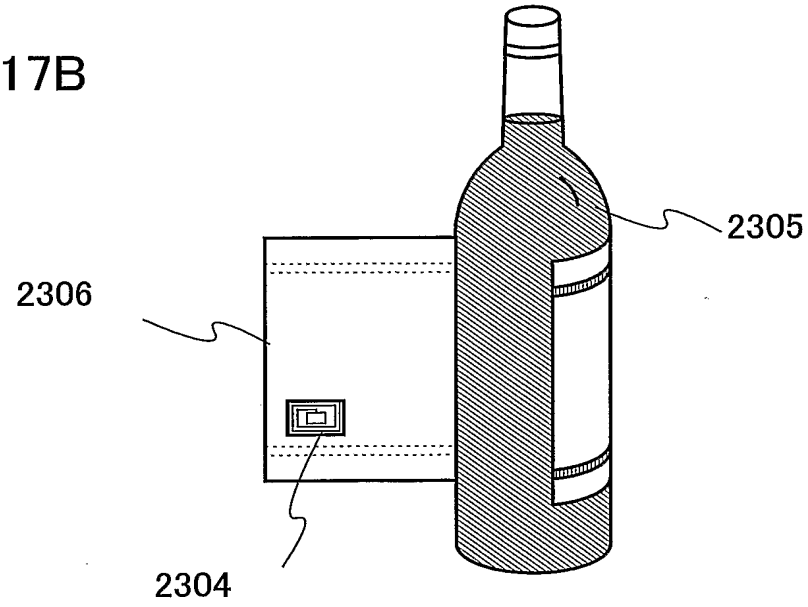


FIG. 18

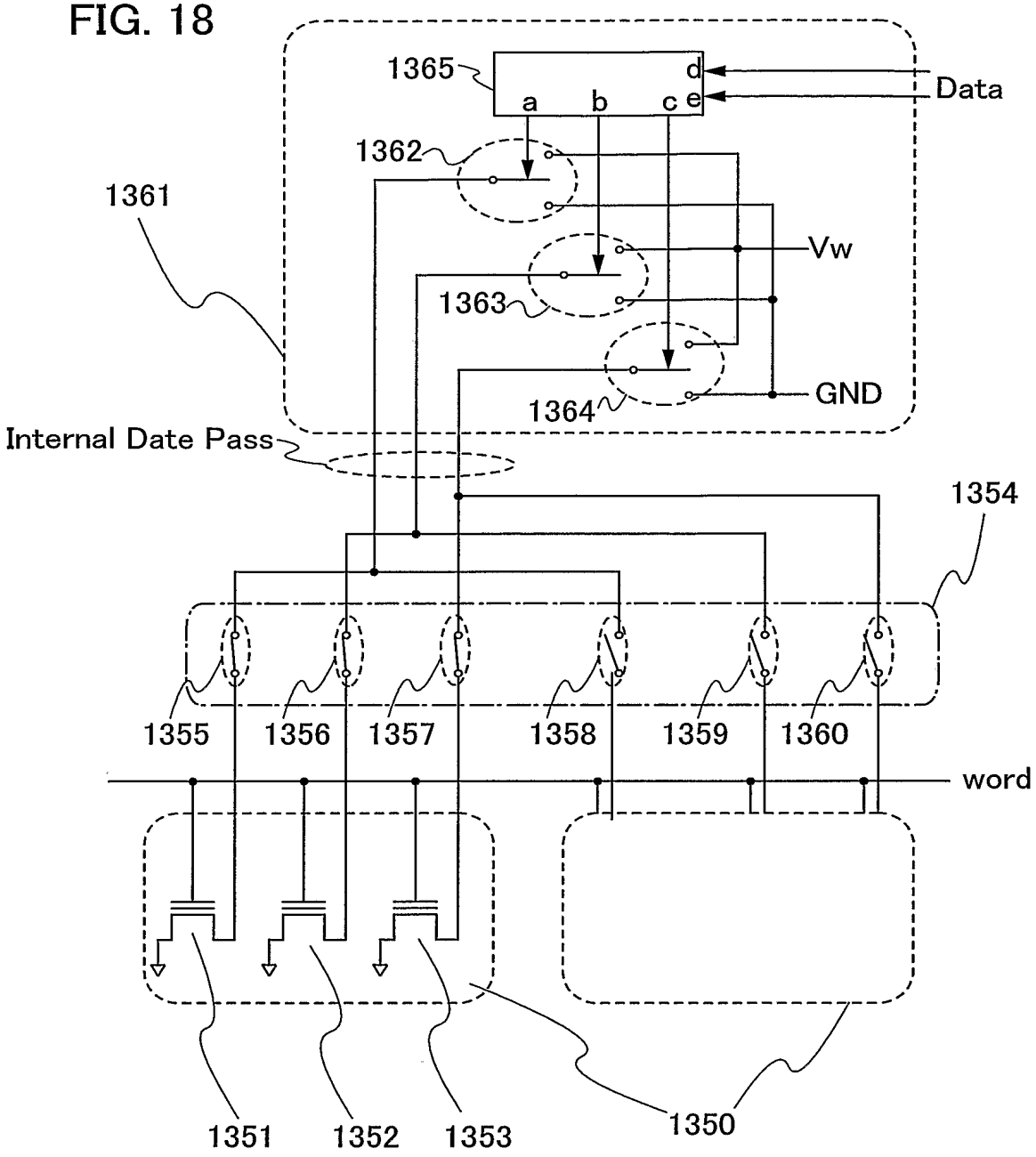

1365
a
b
c
d
e
Data
1362
1361
Vw
1363
GND
1364
Internal Date Pass
1354
1355
1356
1357
1358
1359
1360
word
1351
1352
1353
1350

FIG. 19

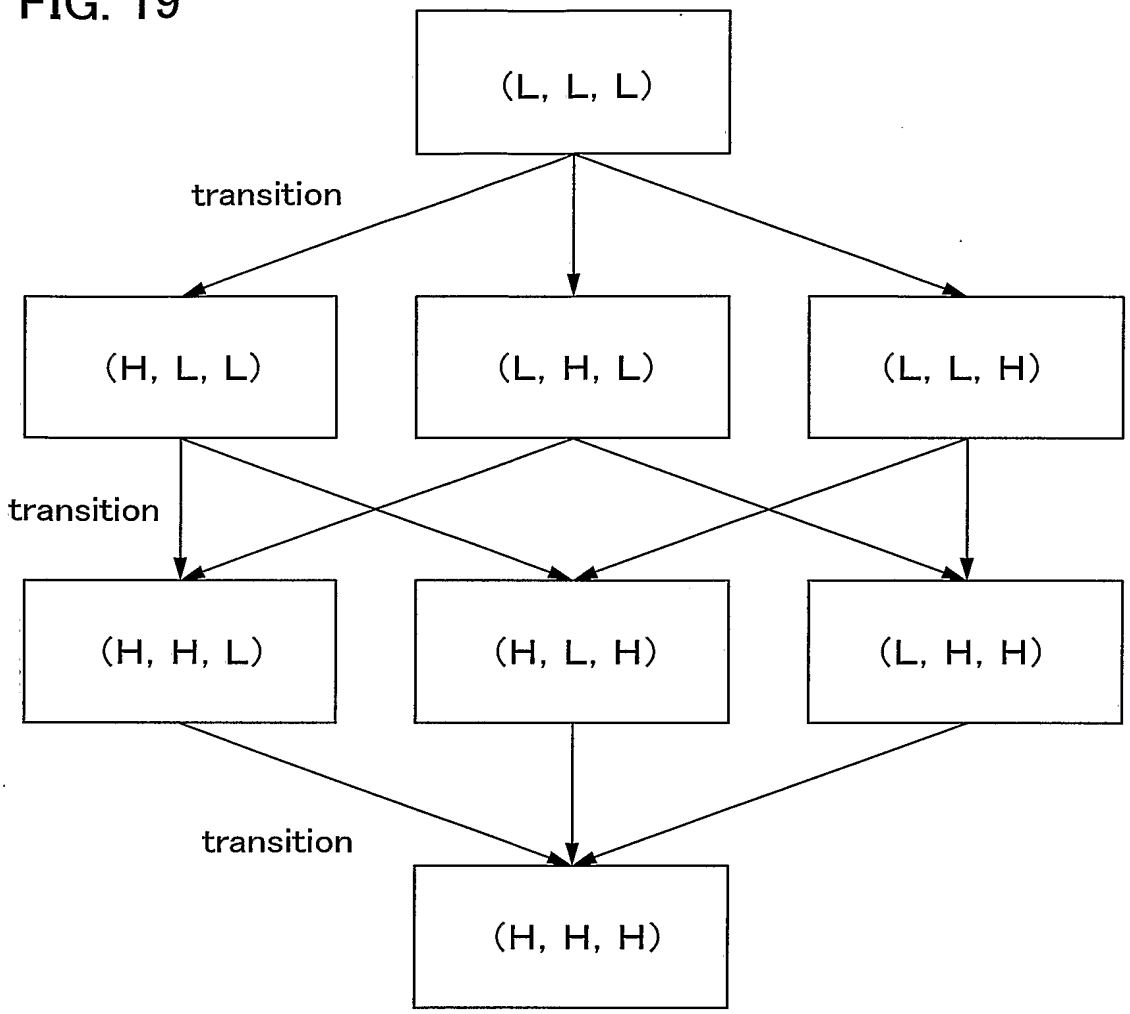

(L, L, L)
transition
(H, L, L)
(L, H, L)
(L, L, H)
transition
(H, H, L)
(H, L, H)
(L, H, H)
transition
(H, H, H)

FIG. 20A

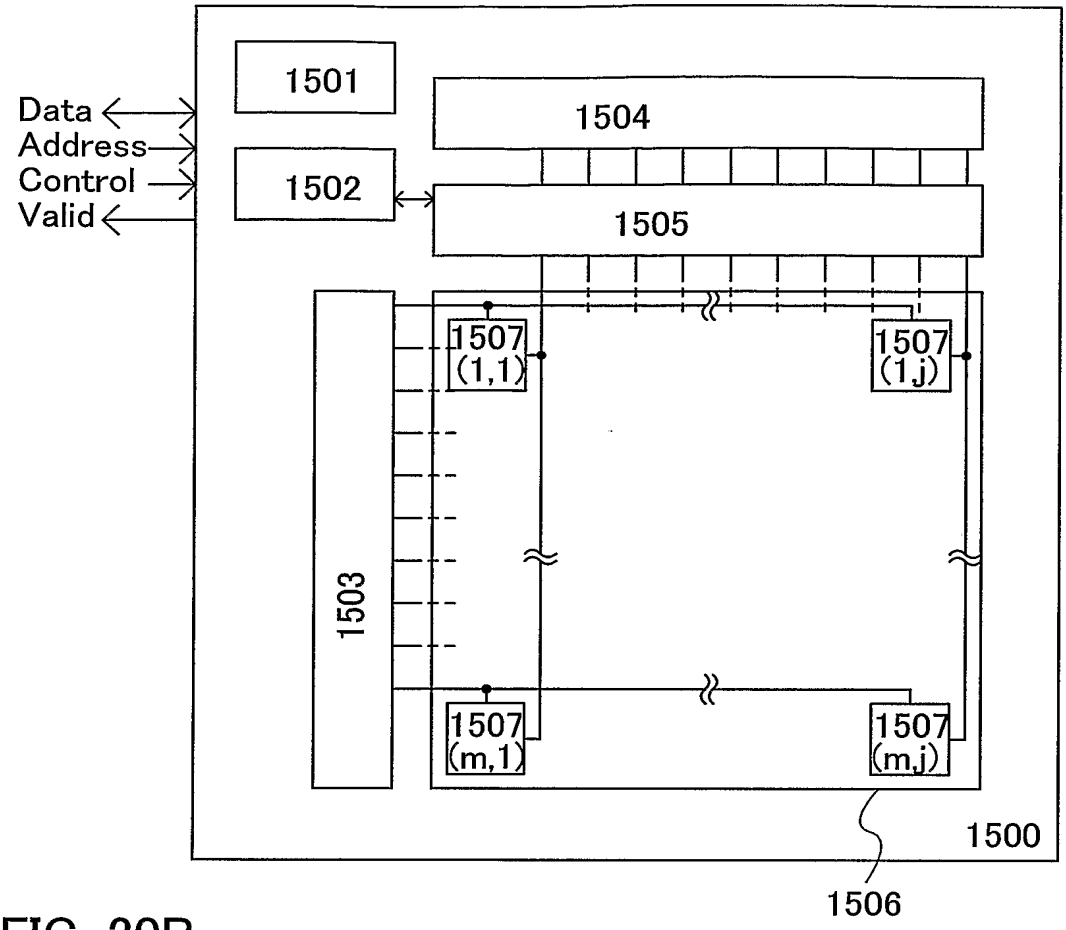


FIG. 20B

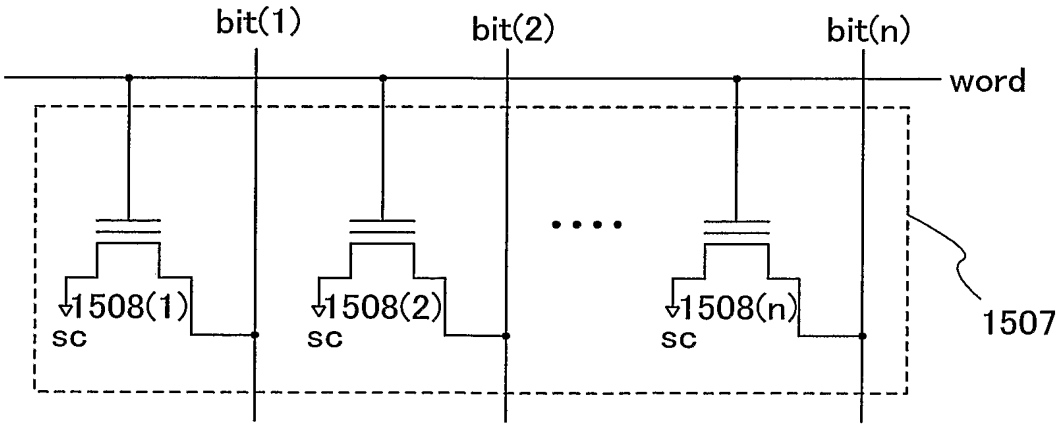


FIG. 21

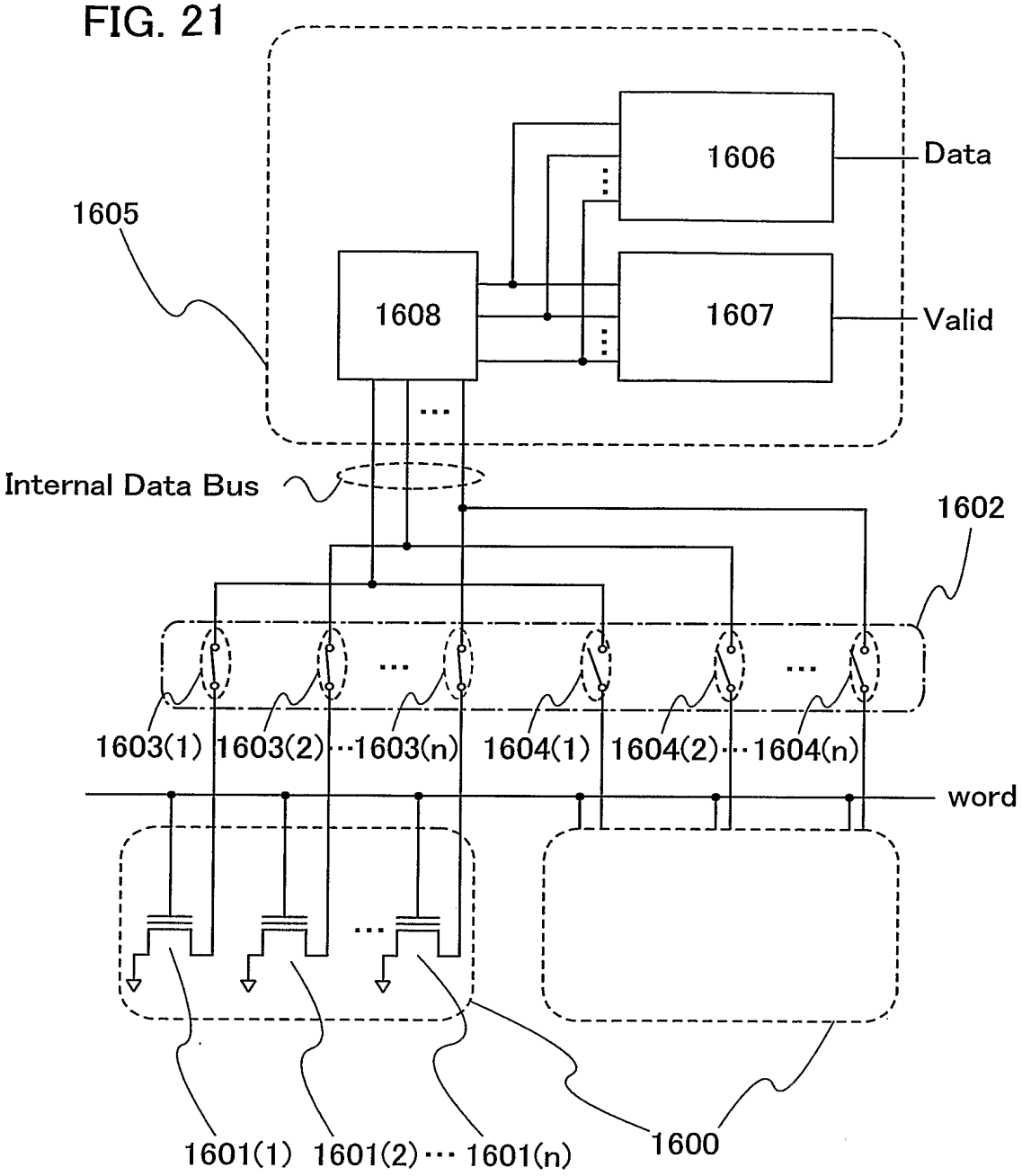

1606
Data
1605
1608
1607
Valid
Internal Data Bus
1602
1603(1)
1603(2)
1603(n)
1604(1)
1604(2)
1604(n)
word
1601(1)
1601(2)
1601(n)
1600

FIG. 22

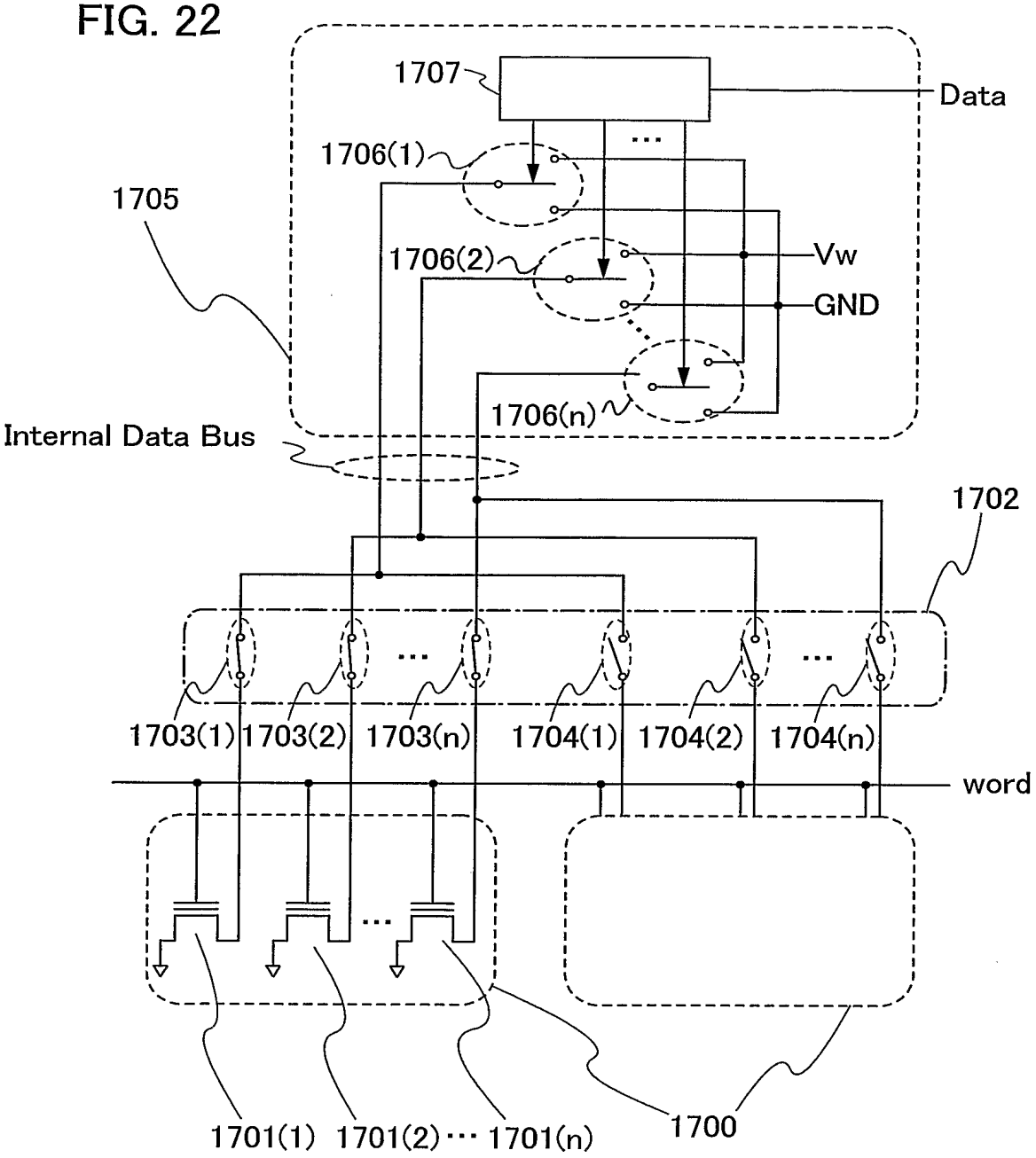

1707
Data
1706(1)
1705
1706(2)
Vw
GND
1706(n)
Internal Data Bus
1702
1703(1)
1703(2)
1703(n)
1704(1)
1704(2)
1704(n)
word
1701(1)
1701(2)
1701(n)
1700

FIG. 23A

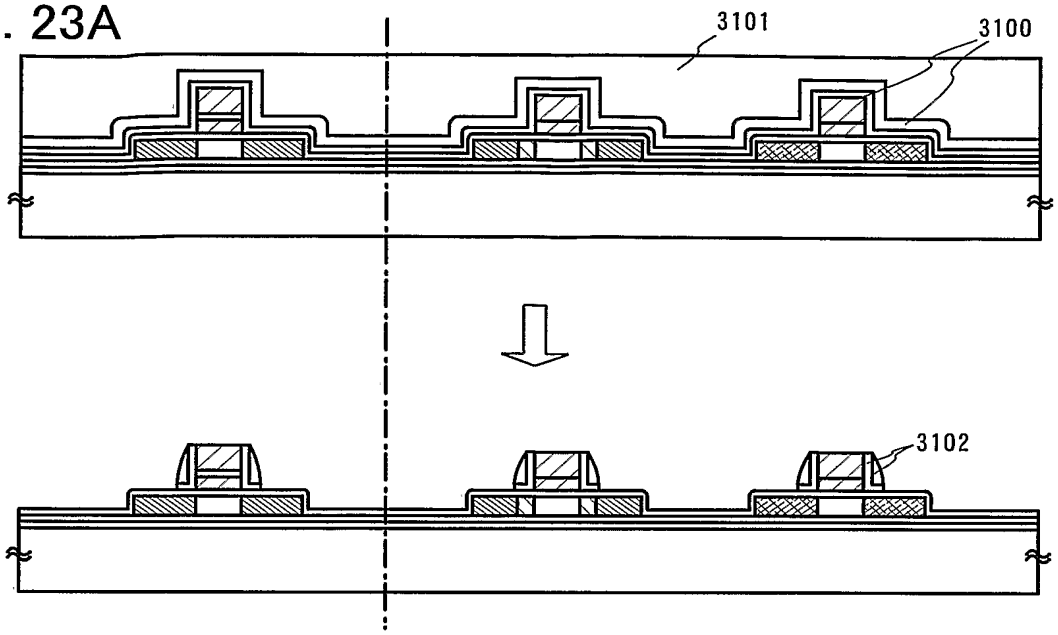
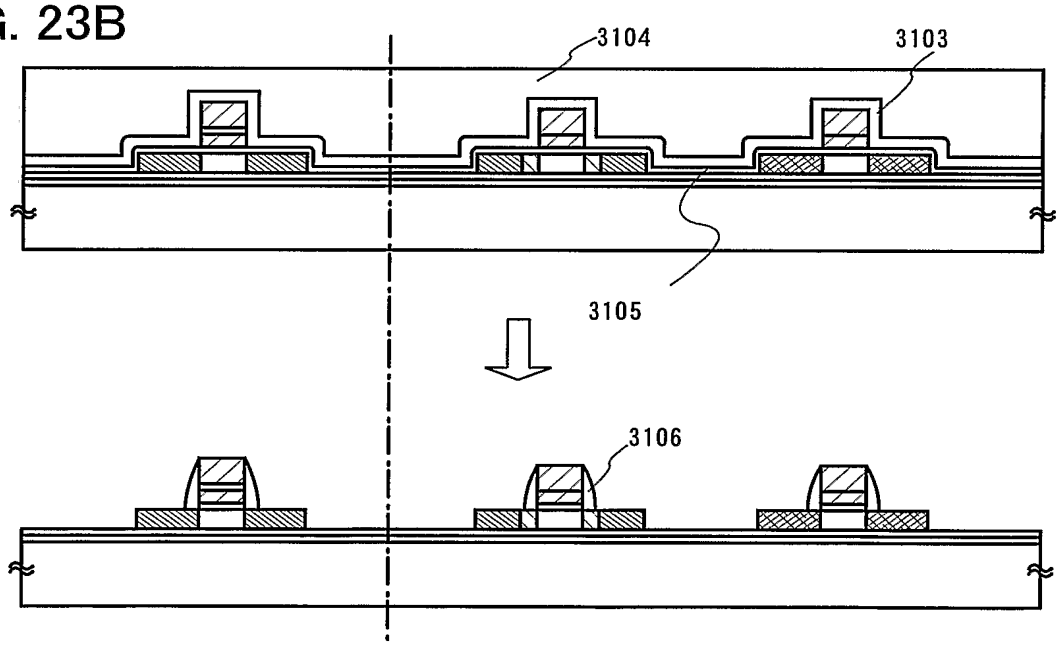


FIG. 23B



EXPLANATION OF REFERENCE

100: substrate, 101: write circuit, 102: read circuit, 103: row decoder, 104: column decoder, 105: selector, 106: memory cell array, 107: memory cell, 108: first memory element, 109: second memory element, 150: substrate, 151: write circuit, 152: read circuit, 153: row decoder, 154: column decoder, 155: selector, 156: memory cell array, 157: memory cell, 158: first memory element, 159: second memory element, 160: third memory element, 200: memory cell, 201: first memory element, 202: second memory element, 203: selector, 204: switch, 205: switch, 206: switch, 207: switch, 208: switch, 209: switch, 210: read circuit, 211: XOR gate, 212: resistor, 213: resistor, 250: memory cell, 251: first memory element, 252: second memory element, 253: third memory element, 254: selector, 255: switch, 256: switch, 257: switch, 258: switch, 259: switch, 260: switch, 261: read circuit, 262: converting circuit, 263: determining circuit, 264: read circuit, 800: MNOS memory element, 801: gate electrode, 802: nitride film, 803: oxide film, 804: substrate, 805: source region, 806: drain region, 810: MONOS memory element, 811: gate electrode, 812: oxide film, 813: nitride film, 814: oxide film, 815: substrate, 816: source region, 817: drain region, 900: memory element, 901: gate electrode, 902: microcrystalline Si layer, 903: substrate, 904: source region, 905: drain region, 1001: IDF chip, 1002: bag, 1003: IDF chip, 1004: passport, 1005: IDF chip, 1006: driver' s license, 1101: IDF chip, 1102, paper money, 1103: thin film transistor, 1104: source region, 1105: channel forming region, 1106: drain region, 1200: IC card, 1201: incorporated memory, 1210: ID tag, 1211: incorporated memory, 1220: product, 1221: protective film, 1222: ID chip, 1230: housing, 1231: ID chip, 1240: tag, 1241: ID chip, 1250: book, 1251: protective film, 1252: ID chip, 1260: paper money, 1261: ID chip, 1270: shoe, 1271: protective film, 1272: ID chip, 1300: memory cell, 1301: first memory element, 1302: second memory element, 1303: selector, 1304: switch, 1305: switch, 1306: switch, 1307: switch, 1308: switch, 1309: switch, 1310: write circuit, 1311:

switch, 1312: switch, 1313: inverter, 1350: memory cell, 1351: first memory element, 1352: second memory element, 1353: third memory element, 1354: selector, 1355: switch, 1356: switch, 1357: switch, 1358: switch, 1359: switch, 1360: switch, 1361: write circuit, 1362: switch, 1363: switch, 1364: switch, 1365: converting circuit, 1401: ID chip, 1402: antenna, 1403: RF circuit, 1404: power source/ clock signal/ reset signal generating circuit, 1405: data demodulating/modulating circuit, 1406: controlling circuit, 1407: memory, 1500: substrate, 1501: write circuit, 1502: read circuit, 1503: row decoder, 1504: column decoder, 1505: selector, 1506: memory cell array, 1507: memory cell, 1508: memory element, 1600: memory cell, 1601: memory element, 1602: selector, 1603: switch, 1604: switch, 1605: read circuit, 1606: converting circuit, 1607: determining circuit, 1608: an internal data reading circuit, 1700: memory cell, 1701: memory element, 1702: selector, 1703: switch, 1704: switch, 1705: write circuit, 1706: switch, 1707: converting circuit, 2301: IDF chip, 2302: label, 2304: IDF chip, 2305: bottle, 2306: label, 3000: insulating substrate, 3001: base film, 3002: base film, 3003: semiconductor layer, 3004: semiconductor layer, 3005: semiconductor layer, 3006: gate insulating film, 3007: conductive layer, 3008: conductive layer, 3009: conductive layer, 3010: gate insulating film, 3011: conductive layer, 3012: conductive layer, 3013: conductive layer, 3014: impurity region, 3015: impurity region, 3016: impurity region, 3017: impurity region, 3018: impurity region, 3019: impurity region, 3020: side wall, 3012: side wall, 3022: impurity region, 3023: impurity region, 3024: interlayer film, 3025: interlayer film, 3026: electrode, 3027: electrode, 3028: electrode, 3029: electrode, 3030: electrode, 3100: insulating film, 3101: resist, 3102: side wall, 3103: insulating film, 3104: resist, 3105: gate insulating film, 3106: side wall, 4000: peeling layer, 4001: interlayer insulating film, 4004: pad, 4005: pad, 4006: protective layer, 4007: groove, 4008: adhesive, 4009: support base.